

U.S. Patent Application Serial No. 09/960,401
Amendment filed August 18, 2004
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AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 Claim 1 (currently amended): A method of producing a color filter, ~~which~~
2 ~~comprises~~ comprising: forming pixels on a transparent substrate using a colored composition
3 containing (a) an amino resin having a carboxyl group and/or a phenolic hydroxyl group, ~~[[and]]~~ (b)
4 a ~~coloring material~~ pigment, and (c) an organic solvent by an ink-jet printing method; ~~and followed~~
5 ~~by~~ curing the pixels.

1 Claim 2 (original): The method of producing a color filter according to claim 1, wherein the
2 amino resin (a) having a carboxyl group and/or a phenolic hydroxyl group is an amino resin obtained
3 by condensing (a-1) (4,6-diamino-1,3,5-triazin-2-yl)benzoic acid with (a-2) at least one aldehyde
4 compound selected from the group consisting of formaldehyde, glyoxylic acid, succinsemialdehyde,
5 and hydroxybenzaldehyde.

1 Claim 3 (original): The method of producing a color filter according to claim 1, wherein the
2 amino resin (a) having a carboxyl group and/or a phenolic hydroxyl group is an amino resin obtained
3 by condensing (a-3) at least one triazine compound selected from the group consisting of melamine,
4 benzoguanamine, and (4,6-diamino-1,3,5-triazin-2-yl)benzoic acid with (a-4) at least one aldehyde
5 compound selected from the group consisting of glyoxylic acid, succinsemialdehyde, and
6 hydroxybenzaldehyde.

1 Claim 4 (original): The method of producing a color filter according to claim 1, wherein the
2 pixels are thermosetted.

1 Claim 5 (original): The method of producing a color filter according to claim 1, wherein the
2 colored composition further contains (c) a compound having a photopolymerizable functional group.

1 Claim 6 (original): The method of producing a color filter according to claim 5, wherein the
2 amino resin (a) having a carboxyl group and/or a phenolic hydroxyl group is an amino resin obtained
3 by condensing (a-1) (4,6-diamino-1,3,5-triazin-2-yl)benzoic acid with (a-2) at least one aldehyde
4 compound selected from the group consisting of formaldehyde, glyoxylic acid, succinsemialdehyde,
5 and hydroxybenzaldehyde.

1 Claim 7 (original): The method of producing a color filter according to claim 5, wherein said
2 amino resin (a) having a carboxyl group and/or a phenolic hydroxyl group is an amino resin obtained
3 by condensing (a-3) at least one triazine compound selected from the group consisting of melamine,
4 benzoguanamine, and (4,6-diamino-1,3,5-triazin-2-yl)benzoic acid with (a-4) at least one aldehyde
5 compound selected from the group consisting of glyoxylic acid, succinsemialdehyde, and
6 hydroxybenzaldehyde.

1 Claim 8 (original): The method of producing a color filter according to claim 5, wherein the
2 pixels are thermosetted after photopolymerization.

1 Claim 9 (new): The method of producing a color filter according to claim 1, wherein the
2 amount of (b) the pigment in the colored composition is within a range of 10 to 70% by weight based
3 on the non-volatile content in the colored composition.

1 Claim 10 (new): The method of producing a color filter according to claim 1, wherein the
2 average particle diameter of (b) the pigment is within a range of 0.005 to 3 μm .

1 Claim 11 (new): The method of producing a color filter according to claim 1, wherein the
2 average particle diameter of (b) the pigment is within a range of 0.01 to 1 μm .

1 Claim 12 (new): The method of producing a color filter according to claim 1, wherein the
2 amount of (c) the solvent is within a range of 1 to 19 parts by weight based on 1 part by weight of
3 the non-volatile content in the colored composition.

1 Claim 13 (new): The method of producing a color filter according to claim 1, wherein (c)
2 the solvent has a boiling point of 80 to 200°C.

1 Claim 14 (new): The method of producing a color filter according to claim 1, wherein (c)
2 the solvent is at least one selected from the group consisting of aromatic solvents including toluene,
3 xylene, and methoxybenzene; acetic acid ester solvents including ethyl acetate, butyl acetate,
4 propylene glycol monomethyl ether acetate, and propylene glycol monoethyl ether acetate;
5 propionate solvents including ethoxyethyl propionate; alcohol solvents including methanol, ethanol,
6 propanol, and ethyleneglycol; ether solvents including butylcellosolve, propylene glycol monomethyl
7 ether, diethylene glycol diethyl ether, and diethylene glycol dimethyl ether; ketone solvents including
8 methyl ethyl ketone, methyl isobutyl ketone, and cyclohexanone; aliphatic hydrocarbon solvents
9 including hexane; nitrogen compound solvents including N,N-dimethylformamide, γ -butyrolactam,
10 N-methyl-2-pyrrolidone, aniline, and pyridine; lactone solvents including γ -butyrolactone; and
11 carbamic acid esters.

1 Claim 15 (new): The method of producing a color filter according to claim 1, wherein
2 (c) the solvent is at least one selected from the group consisting of acetic acid ester solvents which
3 include ethyl acetate, butyl acetate, propylene glycol monomethyl ether acetate, and propylene glycol
4 monoethyl ether acetate.

1 Claim 16 (new): The method of producing a color filter according to claim 1, wherein the
2 viscosity of the colored composition is not more than 50 mPa • s.

1 Claim 17 (new): The method of producing a color filter according to claim 1, wherein the
2 viscosity of the colored composition is not more than 10 mPa • s.

1 Claim 18 (new): The method of producing a color filter according to claim 1, wherein the
2 transparent substrate has an ink-jet ink receiving layer thereon.